

Title (en)

PASSIVE RIDE CONTROL FOR A VEHICLE SUSPENSION SYSTEM

Title (de)

PASSIVE REGELUNG DES FAHRVERHALTENS FÜR EIN FAHRZEUGAUFHÄNGUNGSSYSTEM

Title (fr)

REGLAGE PASSIF DE SUSPENSION POUR SUSPENSION DE VEHICULE

Publication

**EP 1189775 B1 20070404 (EN)**

Application

**EP 00915044 A 20000412**

Priority

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Abstract (en)

[origin: US6761371B1] A roll control system for a vehicle suspension system and a method for controlling the control system is disclosed. The vehicle has at least one pair of laterally spaced front wheel assemblies and at least one pair of laterally spaced rear wheel assemblies. Each wheel assembly includes a wheel and a wheel mounting permitting wheel movement in a generally vertical direction relative to the vehicle body, and vehicle support means for providing at least substantially a major portion of the support for the vehicle. The roll control system includes: wheel cylinders respectively locatable between each wheel mounting and the vehicle body. Each wheel cylinder includes an inner volume separated into first and second chambers by a piston supported within, and first and second fluid circuits respectively providing fluid connection between the wheel cylinders by fluid conduits. Each of the fluid circuits provide fluid communication between the first chambers on one side of the vehicle and the said second chambers on the opposite side of the vehicle to thereby provide roll support decoupled from a warp mode of the vehicle suspension system by providing a roll stiffness about a level roll attitude whilst simultaneously providing substantially zero warp stiffness. The method includes bypassing fluid flow from at least a substantial portion of the conduits during predetermined wheel inputs to the control system to thereby minimize line damping and/or fluid inertia effects on the damping of the control system.

IPC 8 full level

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